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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/940,594

08/29/2001

Taminori Tomita

ASA-1029

5019

24956

7590

08/29/2006

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.  
1800 DIAGONAL ROAD  
SUITE 370  
ALEXANDRIA, VA 22314

EXAMINER

DAVIS, ZACHARY A

ART UNIT

PAPER NUMBER

2137

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 09/940,594	<b>Applicant(s)</b> TOMITA ET AL.	
	<b>Examiner</b> Zachary A. Davis	<b>Art Unit</b> 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 16, 17 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16, 17 and 20-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. A response was received on 16 June 2006. By this response, Claims 1, 7, 16, and 17 have been amended. Claims 18 and 19 have been canceled. New claims 20-25 have been added. Claims 1-12, 16, 17, and 20-25 are currently pending in the present application.

### *Response to Arguments*

2. Applicant's arguments filed 16 June 2006 have been fully considered but they are not persuasive.

Claims 1-12, 16, and 17 were rejected under 35 U.S.C. 103(a) as unpatentable over Brown et al, US Patent 6671805, in view of Romney et al, US Patent 5872848.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Specifically, in reference to independent Claims 1 and 7, Applicant argues that "Romney's delimiter for dividing data to be signed from signature information (such as an encrypted hash value and a signature version) is essentially different in concept from Applicants' claimed invention in which a detected range of partial data is displayed as a

frame surrounding the content of said partial data" (see page 13 of the present response, emphasis in original). The Examiner respectfully disagrees. Applicant further argues that Romney merely indicates the beginning and end of data and does not show a frame surrounding the content of the data (see page 14 of the present response). The Examiner also disagrees with this characterization. In response to the assertion that the indicators in Romney are "essentially different in concept" from the claimed range displayed as a frame, the Examiner notes the close correspondence between Figure 6 of Romney and Figure 1 of the present application. Particularly, the Examiner notes that both figures include data that is signed, a separate section of data relating to the signature of the signed data, and delineations between the signed data and the signature data. Regarding the assertion that Romney does not show a frame surrounding the content of the data, the Examiner again points to Figure 6 of Romney, noting that the sections of data are framed on the top and bottom (i.e. start and finish, or alternately, either end) by the noted delimiting lines. The Examiner believes that this constitutes a frame. Even in the event that this does not constitute a frame surrounding the content of the data, the Examiner believes that it would be obvious, at the very least, to add additional lines on either side of the data (i.e. the left and right) in order to further delineate or frame the data.

In reference to new Claims 20-25, Applicant argues that the cited art does not teach or suggest the claimed limitations. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims

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patentably distinguishes them from the references. Further, the Examiner believes that the cited art does, in fact, disclose the claimed limitations (as far as they can best be interpreted in light of the issues of indefiniteness raised), as detailed below.

Therefore, for the reasons detailed above, the Examiner maintains the rejections as set forth below.

### ***Specification***

3. The objection to the amendment filed 05 December 2006 under 35 U.S.C. 132(a) for introducing new matter into the disclosure is withdrawn in light of the cancellation of the new matter.

4. Applicant notes that the common definition of "multiplex" is "relating to, having, or consisting of multiple elements or parts" (see page 12 of the present response).

However, the Examiner notes that the definition for multiplexing cited in the previous Office action (namely, the process of combining signals for transmission through a shared channel) is art-specific, and one of ordinary skill in the art would be inclined to ascribe the art-specific definition to the term rather than the common definition noted by the Applicant.

### ***Claim Objections***

5. Claims 21 and 22 are objected to because of the following informalities:

Claim 21 recites the limitation “whether there remains unverified digital signature” in lines 5-6 of the claim. It appears that this is intended to read “whether there remains an unverified digital signature” as in Claim 24.

Claim 22 recites the limitations “whether there remains undisplayed digital data” in line 5 of the claim and “the determination indicates that undisplayed digital signature exists” in lines 7-8 of the claim. It appears that these are intended to read, respectively, “whether there remains an undisplayed digital data” and “the determination indicates that an undisplayed digital signature exists” as in Claim 25.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The rejection of Claim 17 under 35 U.S.C. 112, second paragraph, as indefinite, is withdrawn in light of the amendments to the claims.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation “detecting each of digital signatures” in line 4 of the claim. This is generally vague, as it is not clear each of what plurality of digital

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signatures is detected. The claim further recites the limitation "said digital signature data" in line 4; it is not clear whether this refers to the digital signature data input in Claim 1 (and referred to in line 2 of Claim 20) or to the "another digital signature data" also in line 2 of Claim 20. Claim 20 also recites the limitation "each of said digital signatures" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claims, although it appears that this could refer to the detected "each of digital signatures" recited earlier in the claim. The claim additionally recites "detecting information regarding a signer to each of said digital signatures" in lines 8-9. The language "a signer to each of said digital signatures" is generally unclear, as it is not clear if there is one signer for each signature or one signer for all signatures; further, the use of the phrasing "signer to ... digital signatures" is itself somewhat vague and the Examiner notes that the use of the word "of" in place of "to" might be more clear. The claim further recites "each of said digital signature object data" in line 10; there is insufficient antecedent basis for this limitation, as there only appears to be mention of a single digital signature object data (see line 5 of claim 20) and not plural object data. The claim also recites "said identifier of each of digital signature object data" in line 11; first, the second use of the word "of" in the phrase is generally unclear, and second, there does not appear to be sufficient antecedent basis for this limitation in the claims (although it appears that this could possibly refer to the detected identifier in line 5 of the claim). Claim 20 also recites "means for displaying on a screen on which the entire data of said digital signature data is displayed" in lines 15-16; however, it is not clear what is displayed by the means for displaying. The claim further recites "said digital signature

object data" in line 17; if there are multiple object data, then it is not clear to which this refers. Finally, the claim recites "said other digital signature object data" in line 18; there is insufficient antecedent basis for this limitation in the claims.

Claim 21 recites the limitations "the signer information" in line 3 and "the verification result" in line 4. There is insufficient antecedent basis for these limitations in the claims. The claim further recites "said digital signature object data" in lines 4 and 5; as there appear to be multiple digital signature object data recited in Claim 20, and also "other digital signature object data" in Claim 20, it is not clear to which this refers.

Claim 22 recites the limitation "said displaying means" in lines 3 and 7 of the claim. It is not clear whether this refers to the displaying means recited in Claim 1 or the displaying means recited in Claim 20. The claim also recites the limitations "the signer information" in line 3 and "the verification result" in line 4. There is insufficient antecedent basis for these limitations in the claims. The claim further recites "said digital signature object data" in lines 3-4 and 4-5; as there appear to be multiple digital signature object data recited in Claim 20, and also "other digital signature object data" in Claim 20, it is not clear to which this is intended to refer. Claim 22 additionally recites the limitation "undisplayed digital display" in line 5; this is generally unclear, as it appears that a display is, by definition, displayed, and therefore cannot be "undisplayed". Finally, the claim recites "the determination" in line 7; it is not clear whether this refers to the determination in claim 20, line 12, or the determination recited earlier in Claim 22.



Claim 23 recites the limitation “detecting each of digital signatures” in line 5 of the claim. This is generally vague, as it is not clear each of what plurality of digital signatures is detected. The claim further recites the limitation “said digital signature data” in line 5; it is not clear whether this refers to the digital signature data input in Claim 7 (and referred to in line 3 of Claim 23) or to the “another digital signature data” also in line 3 of Claim 23. The claim also recites the limitation “each of said digital signatures” in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claims, although it appears that this could refer to the detected “each of digital signatures” recited earlier in the claim. The claim additionally recites “detecting information regarding a signer to each of said digital signatures” in lines 8-9. The language “a signer to each of said digital signatures” is generally unclear, as it is not clear if there is one signer for each signature or one signer for all signatures; further, the use of the phrasing “signer to ... digital signatures” is itself somewhat vague and the Examiner notes that the use of the word “of” in place of “to” might be more clear. The claim further recites “each of said digital signature object data” in line 10; there is insufficient antecedent basis for this limitation, as there only appears to be mention of a single digital signature object data (see line 6 of claim 23) and not plural object data. The claim also recites “said identifier of each of digital signature object data” in line 11; first, the second use of the word “of” in the phrase is generally unclear, and second, there does not appear to be sufficient antecedent basis for this limitation in the claims (although it appears that this could possibly refer to the detected identifier in line 6 of the claim). Claim 23 further recites “said digital signature object data” in line 20; if there are

multiple object data, then it is not clear to which this refers. Finally, the claim recites "said other digital signature object data" in line 21; there is insufficient antecedent basis for this limitation in the claims.

Claim 24 recites the limitations "the signer information" in line 3 and "the verification result" in line 4. There is insufficient antecedent basis for these limitations in the claims. The claim further recites "said digital signature object data" in lines 4 and 5; as there appear to be multiple digital signature object data recited in Claim 23, and also "other digital signature object data" in Claim 23, it is not clear to which this refers.

Claim 25 recites the limitation "said displaying step" in lines 3 and 7 of the claim. It is not clear whether this refers to the displaying step recited in Claim 7 or the displaying step recited in Claim 23. The claim also recites the limitations "the signer information" in line 3 and "the verification result" in line 4. There is insufficient antecedent basis for these limitations in the claims. The claim further recites "said digital signature object data" in lines 3-4 and 4-5; as there appear to be multiple digital signature object data recited in Claim 23, and also "other digital signature object data" in Claim 23, it is not clear to which this is intended to refer. Claim 25 additionally recites the limitation "undisplayed digital display" in lines 5-6; this is generally unclear, as it appears that a display is, by definition, displayed, and therefore cannot be "undisplayed". Finally, the claim recites "the determination" in line 7; it is not clear whether this refers to the determination in claim 23, line 12, or the determination recited earlier in Claim 25.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-12, 16, 17, and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al, US Patent 6671805, in view of Romney et al, US Patent 5872848.

In reference to Claim 1, Brown discloses an apparatus including a means for inputting digital signature data (column 13, lines 22-27; column 8, line 57-column 9, line 30), means for detecting the range of a part of data that is signed (column 8, lines 35-47), and a means for displaying the content of the detected data and the detected range of the data (Figure 2, Display Device 208; column 14, lines 46-49). Although Brown discloses that areas not part of the to-be-signed portion are masked and thereby delineated (see column 12, lines 56-67), Brown does not explicitly disclose a "frame" around the content of the partial data representing the range of the part of the data that is signed.

Romney discloses a system for digitally signing documents that includes a frame around the portion of the data that is signed (see Figure 6, indicators 610, 630, 650; column 8, lines 40-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Brown to include a

representation of the range of the part of the data that is signed, in order to give an indication of what is encompassed by the digital signature (see Romney, column 8, lines 40-46) to allow more confidence in verification of the authenticity of the signature (see Romney, column 4, lines 28-52).

In reference to Claims 2 and 3, Brown and Romney further disclose analyzing information on the digital signature (see Brown, column 14, lines 53-57; see also Romney, Figure 9-2 and column 10, lines 4-18), which describes the signer (see Brown, column 14, lines 18-36; Romney, Figure 9-2; column 10, lines 4-18), and displaying the result of the analysis (Brown, column 14, lines 46-62; Romney, Figure 9-2).

In reference to Claims 4 and 5, Brown and Romney further disclose that the content of the part of the data that is signed is displayed (Brown, column 11, line 65-column 12, line 13; column 13, lines 13-21; column 14, lines 46-62; see Romney, Figures 6 and 9-1 through 9-3) and that the result of the analysis is displayed distinctly from the content (Brown, column 14, lines 46-62, noting especially that the ASCII representation of the signature can be displayed, lines 57-58; see also Figure 4D; see also Romney, Figures 6 and 9-1 through 9-3, noting that the content being signed, the analysis, and signature itself are all displayed distinctly).

In reference to Claim 6, Brown and Romney further disclose that the signature is described in XML (Brown, column 7, lines 39-45; column 14, lines 11-17).

In reference to Claim 16, Brown and Romney further disclose a plurality of data portions to which signatures are applied (Brown, column 8, lines 43-45; Romney,

Figures 9-1 through 9-3) and that the content and range of the plurality of data portions are displayed (Brown, column 14, lines 46-62; Romney, Figures 9-1 through 9-3).

In reference to Claim 17, Brown and Romney further disclose an additional signature being added to an already signed partial data, where the content and ranges of each partial data are displayed according to the signatures applied (see Romney, Figures 9-1 through 9-3; column 11, lines 1-25 and column 9, lines 35-45, where an authenticator signs a document including a portion already signed by a client).

In reference to Claim 20, Brown and Romney further disclose another digital signature within the digital signature (see Romney, Figures 9-1 through 9-3; column 11, lines 1-25 and column 9, lines 35-45, where an authenticator signs a document including a portion already signed by a client) and means for detecting and verifying each digital signature (see Brown, column 14, lines 53-57; see also Romney, Figure 9-2 and column 10, lines 4-18) and detecting information regarding a signer for each signature (see Brown, column 14, lines 18-36; Romney, Figure 9-2; column 10, lines 4-18). Brown and Romney additionally disclose means for detecting the range of each signature object (see Brown, column 8, lines 35-47) and determining and displaying a display frame corresponding to each signature object (see Romney, see Figure 6, indicators 610, 630, 650; column 8, lines 40-46), where a display frame of a signature object surrounds a display frame of another signature object and its associated data (see Romney, Figures 9-1 through 9-3; column 11, lines 1-25 and column 9, lines 35-45).

In reference to Claim 21, Brown and Romney further disclose determining if there are still unverified signatures to be processed, and if so, processing those signatures (see, for example, Brown, column 10, lines 35-57, where signatures may be required in a particular order; see also column 11, lines 55-64, where a parser finds portions needing to be processed).

In reference to Claim 22, Brown and Romney further disclose determining if there are undisplayed signatures, and if so, displaying those remaining signatures (see, for example, Brown, column 14, lines 46-62).

Claims 7-12 and 23-25 are directed to a software implementation of the apparatus of Claims 1-6 and 20-22, and are rejected by a similar rationale.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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